Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY 2012 Workplan 12-05

SUMMARY PAGE						
Title of Project	Development of the Lower Nueces River Watershed Protection Plan					
Project Goals	Implement EPA's Healthy Watersheds Initiative by developing a Watershed Protection Plan (WPP) for the Lower Nueces River Watershed (Segment 2102) through: • Establishing and providing direction for a stakeholder group that will serve as a decision-making body, • Identifying and analyzing spatial and temporal patterns in watershed data; and • Increasing education among targeted audience.					
Project Tasks	(1) Project Administration; (2) Quality Assurance (3) Modeling and Data Analysis; (4) Public Participation and Stakeholder Facilitation; (5) On-site Sewage Facility (OSSF) Inventory and Inspections; (6) Water Hyacinth Survey, (7) Large Debris Evaluation, (8) Lower Nueces River Watershed Protection Plan Development					
Measures of Success	• Development and submission of a completed WPP for the Lower Nueces River Watershed • Completed permitted OSSF inventory • Development of a management strategy to address OSSFs in the watershed • Development of a management strategy for water hyacinth in the river • Development of a management strategy for large debris removal from the river • Website development and distribution of education and outreach materials					
Project Type	Implementation ( ); Education ( ); Planning (X); Assessment ( ); Groundwater ( )					
Status of Waterbody on *2010 Texas Integrated Report*	Segment ID 2102_01	Parameter Chlorophyll-*a*	Category 2: Concern (CS)			
Project Location (Statewide or Watershed and County)	Nueces River Watershed below Lake Corpus Christi and above Tidal Boundary in Jim Wells, Nueces, and San Patricio Counties					
Key Project Activities	Hire Staff (X); Surface Water Quality Monitoring ( ); Technical Assistance ( ); Education (X); Implementation ( ); BMP Effectiveness Monitoring ( ); Demonstration ( ); Planning (X); Modeling (X); Bacterial Source Tracking ( ); Other ( )					
Texas NPS Management Program Elements	• Element One – LTGs 2,5,6, 7 • Element One – STGs 2, 3					
Project Costs	Federal	$309,727	Non-Federal	$248,968	Total	$558,695
Project Management	• Nueces River Authority					
Project Period	October 1, 2012 – September 30, 2015					

Part I – Applicant Information

Applicant							
Project Lead	Rocky Freund						
Title	Deputy Executive Director						
Organization	Nueces River Authority						
E-mail Address	rfreund@nueces-ra.org						
Street Address	400 Mann St. Suite 1002						
City	Corpus Christi	County	Nueces		TX	Zip Code	78401
Telephone Number	361-653-2110			Fax Number	361-653-2115		

Project Partners	
Names	Roles & Responsibilities
Texas State Soil and Water Conservation Board (TSSWCB)	Provide state oversight and management of all project activities and ensure coordination of activities with related projects and the Texas Commission on Environmental Quality.
Nueces River Authority (NRA)	Perform and/or supervise all work described in the tasks. Provide non-federal match. Conduct Modeling and Data Analysis (Task 3)
City of Corpus Christi Water Department (CCCWD)	Collaborate as critical local stakeholder and provide non-federal match through interlocal agreement with NRA.
TBD2	Water Hyacinth Survey (Task 6)
Blackland Research Center – Texas A&M AgriLife Research (BRC)	Large Debris Evaluation (Task 7)
Texas AgriLife Extension Service – Department of Biological and Agricultural Engineering (Extension)	Conduct OSSF workshops (Subtask 5.2)
Nueces River Watershed Partnership	Provide input on content and development of the WPP.
Jim Wells, Nueces, and San Patricio Counties	Participation in the Don't Mess With Texas Water (DMWTW) Program.

Part II – Project Information

Project Type							
Surface Water	X	Groundwater					
Does the project implement recommendations made in (a) a completed WPP, (b) an adopted TMDL, (c) an approved I-Plan, or (d) a Comprehensive Conservation and Management Plan developed under CWA §320?				Yes		No	X
If yes, identify the document.	N/A						
If yes, identify the agency/group that developed and/or approved the document.	N/A			Year Developed	N/A		

Watershed Information				
Watershed Name(s)	Hydrologic Unit Code (12 Digit)	Segment ID	305(b) Category	Size (Acres)
Lower Nueces River	121101110701 - 121101110705	2102	2	116,862

Water Quality Impairment

Describe all known causes (pollutants of concern) of water quality impairments or concerns from any of the following sources: *2010 Texas Integrated Report*, Clean Rivers Program Basin Summary/Highlights Reports or other documented sources.

The 2008 Texas Water Quality Inventory and 2010 Texas Integrated Report list chlorophyll-*a* as a concern for assessment unit 2102_01. The 2008 Clean Rivers Program (CRP) Basin Summary Report noted an increasing trend in the chlorophyll-*a* levels in both assessment units (2102_01 and 2102_02). These levels exceed the 14.1µg/L screening level. One possible explanation is that since the Mary Rhodes Pipeline came online, less water is being diverted from the river itself for municipal and industrial use, so during times of little rainfall, the overall flow in the river is lower resulting in reduced flushing.

A turbidity spike (from 20 NTU to 1,900 NTU) in November 2009 resulted in a drinking water violation at the City of Corpus Christi O.N. Stevens Water Treatment Plant. A sediment loading model, developed by the United States Geological Survey (USGS), indicated that the turbidity increase was most likely due to localized, heavy rainfall in the Bayou Creek tributary. The land use in the Bayou Creek watershed is primary farmland, which was bare after crop harvest at the time of the storm event. However, major bank manipulation by landowners, may also be contributing to the problem.

The 2008 CRP Basin Summary Report also shows increasing trends for total dissolved solids (TDS), chloride, and sulfate. Of these three parameters, only TDS averages are approaching the criteria (500 mg/L); chloride and sulfate averages are well below their criteria (250 mg/L).

A review of bacteria levels from the 2002-2008 Texas Water Quality Inventories and 2010 Texas Integrated Report indicates a slight increasing trend in 2102_01, but well below the 126 cfu/100 mL geometric mean criteria. Due to the location of the CRP monitoring sites, located at the upstream end of their respective assessment units, the measured parameters may not reflect the actual values in the assessment unit. Therefore, the measurements taken at Station 12964 are more appropriate for analysis of 2102_02. Routine monitoring began in FY2012 at Station 20936 at Hazel Bazemore Park located near the downstream end of 2102_01 for more representative information in that assessment unit.

Project Narrative

Problem/Need Statement

The Choke Canyon Reservoir / Lake Corpus Christi Reservoir System supplies water for municipal and industrial use in the Coastal Bend area of South Texas. The City of Corpus Christi is the primary water supplier. Nearly one half million people rely on this source for their drinking water supply. The water is released from Lake Corpus Christi and delivered to water treatment plants downstream via the Nueces River Below Lake Corpus Christi (Segment 2102). The segment forms the county line between Jim Wells and San Patricio Counties and between Nueces and San Patricio Counties.

The 2010 Integrated Report lists chlorophyll-*a* as a concern on the lower 25 miles of the segment (2101_01). There are currently no impairments on the 303(d) List for this segment.

The upper 30 miles or so of the river segment flows primarily through rural ranch and farm lands. Several small communities; the City of San Patricio and River Estates in San Patricio County and Sandy Hollow in Nueces County; rely on OSSFs for wastewater disposal. Sediment loading from cropland and other land uses is a concern for this area, primarily for the City of Corpus Christi for treatment and drinking water standards. Excess nutrients from farm land and bacteria from failing septic systems may also contribute to water quality degradation and need to be investigated.

The lower nine miles of the river has more development on the Nueces County side. An area known as County Road (CR) 73 is located along the river just west of the City of Corpus Christi. The residences rely on septic systems for wastewater disposal. However, it is suspected that not all houses have properly functioning septic systems, if any at all. The area is low lying and prone to flooding, especially when Lake Corpus Christi is full and water spills over the dam. CR 73 has been a popular spot for illegal dumping, and items such as refrigerators and cars have been dumped in the river itself. Within the watershed and the City of Corpus Christi city limits is a golf course and relatively dense housing. Therefore, failing (or lack of) septic systems, excessive fertilizers, and storm water runoff are possible pollutant sources and need to be investigated.

One goal of the WPP and the Nueces River Watershed Partnership is to address these issues before they become impairments.

In May 2010, CCCWD staff spent several days on boats removing trash and small debris from the river between the upstream end of CR 73 and Hazel Bazemore Park in Corpus Christi. In June 2010, CCCWD, with help from Nueces County and several local recycling companies, conducted a three-day cleanup along the road. A total of 840 cubic yards of trash and debris, over 100 tires, and a trailer load of scrap metal were removed.

Beginning in August 2010, CCWCD broadened their interlocal agreement (ILA) with NRA to include a source water protection program for the Lower Nueces River, focusing primarily on problems along CR 73. NRA, with support of the CCCWD, has broadened the scope of the project to implement the U.S. Environmental Protection Agency's (EPA) Healthy Watersheds Initiative by developing a WPP that addresses the nine elements fundamental to a potentially successful plan. The CCCWD is providing NRA with funding up to $100,000 annually for salaries, fringe benefits, travel, and supplies related to the project. A deliverable of the CCCWD's ILA with NRA is the development of a five-year scope of work and budget. CCCWD has budgeted additional funds for project elements identified in the scope of work.

NRA began by identifying and contacting local stakeholders such as Commissioner's Courts in Jim Wells, Nueces, and San Patricio Counties; the Soil and Water Conservation Districts (SWCD) in all three counties; Nueces County Water Conservation Improvement District #3; San Patricio Municipal Water District; and local state agency personnel.

A meeting for all stakeholders was held in January 2011 and the Nueces River Watershed Partnership was formed. Additional stakeholder and education and outreach, water quality, utilities, agriculture, and recreation workgroup

meetings have identified numerous issues to be addressed in the watershed which have been included in the NRA/CCCWD scope of work including:

- modeling and data analysis of sediment, nutrient, and bacteria loads
- working with the local SWCDs to document implementation of agricultural best management practices
- participating in the implementation of HB 451 – Don't Mess with Texas Waters
- participating in photo contests and environmental awards
- providing OSSF workshops for homeowners
- creating an inventory and GIS of OSSFs, pipelines, and oil and gas wells
- developing an OSSF inspection, repair, and replacement program
- investigating the creation of Municipal Utility Districts to address OSSF concerns
- conducting periodic river cleanups for floating trash and debris
- conducting a survey of submerged debris and removing that debris
- deploying educational kiosks
- investigating the creation of local transfer stations to address illegal dumping
- installing real-time water quality monitoring systems
- removing water hyacinth, an aquatic invasive species
- employing an additional code enforcement officer

Additionally, there is potential for increased biological pollution and reduction in flows should what are now isolated pockets of invasive plants continue to spread. These plants, water hyacinth, are emergent hydrophytes and use vast quantities of water relative to native riparian communities. According to the EPA, more than one third of all the States have waters that are listed for invasive species under §303(d) of the Clean Water Act (CWA). Physical and biological disruptions of aquatic systems caused by invasive species alter water quantity and water quality. Invasive species have a variety of negative impacts on water resources affecting recreation, irrigation, municipal, and agricultural water supply. These invasive species affect the quantity and timing of runoff, erosion, sedimentation, and other natural physical processes and may affect water availability in general. Comprehensive analyses and evaluations of these processes will provide critical evaluation tools to managers and policy makers on how best to factor invasive species into water management plans. It is far less expensive to address invasive species issues proactively than reactively. To proactively address incipient invasive species issues in the Lower Nueces River Watershed, guidance from EPA's Office of Wetlands, Oceans and Watersheds (OWOW) Invasive Species Action Plan to improve effectiveness at countering invasive species that adversely impact the nation's aquatic systems will be used, in particular, monitoring, education and outreach, and rapid response elements.

Texas AgriLife Extension Service, in collaboration with NRA, hosted a Texas Watershed Steward Program workshop in May 2011 focused on the Lower Nueces River through TSSWCB project 07-09 *Statewide Implementation of the Texas Watershed Steward Program.*

To the extent possible, the EPA Healthy Watersheds Initiative concepts, assessments, and management approaches outlined in the technical guidance document *Identifying and Protecting Healthy Watersheds* (EPA 2012) will be used to help guide the assessment and planning process.

NRA, as the Nueces River Watershed Partnership coordinator through its contract with CCCWD, is seeking assistance from TSSWCB to provide expertise, guidance, and support for this important project. The CCCWD ILA with NRA will provide the match to allow for TSSWCB's funds to address WPP development elements outside the scope of the CCWCD / NRA ILA, such as bacteria modeling. This collaboration will result in the most economical and efficient use of available funds.

Project Narrative

General Project Description (Include Project Location Map)

The project will culminate in the development of a WPP for the Nueces River Below Lake Corpus Christi (Segment 2102) consistent with 1) the EPA Healthy Watersheds Initiative [*Identifying and Protecting Healthy Watersheds* (EPA 2012)], 2) the EPA OWOW Invasive Species Action Plan, and 3) the expectations of the nine elements fundamental to watershed-based plans as described in EPA's 2004 *Nonpoint Source Program and Grants Guidelines* (2003) and the *Handbook for Developing Watershed Plans to Restore and Protect Our Waters* (EPA 2008). This project will provide for project administration, pollutant load evaluations, stakeholder facilitation, project implementation, and education and outreach activities. The watershed includes parts of Jim Wells, Nueces, and San Patricio Counties. It includes 39 river miles and encompasses 116,862 acres.

Project administration will include quarterly reports documenting progress, status, and future activities; quarterly financial reports; project coordination; and compilation and synthesis of the Lower Nueces River WPP. Initial plan development has begun under the CCCWD / NRA ILA.

This project will provide for identifying and contracting with an entity to develop Load Duration Curves (LDC) and use the Spatially Explicit Load Enrichment Calculation Tool (SELECT) to model nutrients and bacteria. A sediment loading model (HSPF) has been developed for the City of Corpus Christi by the USGS for this watershed. The results of the modeling efforts will be used to identify sources and potential sources of pollutant loads. This information will then be used to help identify and implement Best Management Practices (BMP) to address these sources.

Stakeholder facilitation will include quarterly, full stakeholder group meetings and workgroup meetings as needed. Education and outreach, water quality, utilities, agriculture, and recreation workgroups have been formed.

Other project tasks include education and outreach activities, a continuation of creating an OSSF inventory, OSSF workshops for homeowners, development of a voluntary OSSF inspection program, development of an OSSF replacement/repair program, survey of water hyacinth, and evaluation of large debris from the river bed.

Through TSSWCB project 05-14, *Inventory of On-Site Sewage Facilities to Support Watershed Planning in the Lower Nueces River Watershed*, funding was provided in July and August 2011 to begin the process of identifying permitted OSSF systems within the watershed, focusing on the area within the 100-year flood plain. NRA consulted with the City of Corpus Christi GIS department to develop a spreadsheet containing recommended attribute information for a GIS map of the OSSFs. County health departments were visited to access the records and begin compiling the information. Due to the very short time frame for the project, 10 permitted OSSFs were entered for

Nueces County and 42 OSSFs were entered for San Patricio County.

NRA has received additional funding from the Texas General Land Office (GLO) Coastal Management Program (CMP) (Grant Cycle 14) for the remainder of FY2012 to continue collecting OSSF information in Nueces and San Patricio Counties and to hold one OSSF workshop for landowners. Jim Wells County information will be collected through this project.

Although the OSSF inventory and GIS development is not yet complete, it is probable that some of the existing septic systems are failing or in need of repair, and that not all homeowners completely understand how the systems work and need to be maintained. This project includes holding OSSF education workshops for homeowners, developing a volunteer inspection and financial assistance program for qualifying participants. This program would have to be developed so that a voluntary inspection does not result in an enforcement action.

Water hyacinth has become a problem on sections of the river. It can slow the delivery of water downstream and cause problems with intake pumps should large amounts become dislodged during flood events. This project will conduct a survey of the river to determine the full extent of the problem. Results will be supplied to the City of Corpus Christi to assist in their decisions on how to best remove the plants.

The river along CR 73 is known to contain large debris and trash such as large appliances and old, dilapidated docks. This project would provide funding for an evaluation, surface and underwater, of the river to document what is actually there. In December 2011, the City of Corpus Christi began periodic cleanup runs in the river, removing surface debris that could safely be reached from a boat. Subsequent work will include determining if submerged items can be removed without causing significant environmental harm.

A website for the Nueces River Watershed Partnership, www.nuecesriverpartnership.org, has been developed. This project will assist with programming for a redesign similar to existing watershed partnership websites, and periodic updates.

This project will also assist in the development, design, and printing of educational materials for the work described above and/or other activities as opportunities arise.

Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	$42,440	Non-Federal	$146,214	Total	$188,654
Objective	To effectively administer, coordinate and monitor all work performed under this project including technical and financial supervision and preparation of status reports.					
Subtask 1.1	NRA will prepare electronic quarterly progress reports (QPRs) for submission to the TSSWCB. QPRs shall document all activities performed within a quarter and shall be submitted by the 15th of January, April, July, and October. QPRs shall be distributed to all Project Partners.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 1.2	NRA will perform accounting functions for project funds and will submit appropriate Reimbursement Forms to TSSWCB at least quarterly.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 1.3	NRA will host coordination meetings or conference calls, at least quarterly, with Project Partners to discuss project activities, project schedule, communication needs, deliverables, and other requirements. NRA will develop lists of action items needed following each project coordination meeting and distribute to project personnel.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 1.4	NRA will continue to host and maintain a website (http://www.nuecesriverpartnership.org) to serve as a public clearinghouse for all project- and watershed-related information. All meeting presentations, informational/educational publications, and monitoring and modeling documents and results will be posted to this website. The website will serve as a means to disseminate information to stakeholders and the general public.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 1.5	NRA will serve as the Lower Nueces River Watershed Coordinator and be responsible for the general oversight and coordination of all project activities, reporting requirements, and educational activities, and serve as the primary conduit for interaction with landowners, citizens, and entities to facilitate the development of the WPP. The Watershed Coordinator shall successfully complete (or have already completed) the Texas Watershed Planning Short Course and participate in Texas Watershed Coordinator Roundtables.					
	Start Date	Month 1	Completion Date	Month 36		
Deliverables	• Quarterly progress reports in electronic format • Reimbursement Forms and necessary documentation in hard copy format • Lists of action items from project coordination meetings • Project website					

Tasks, Objectives and Schedules						
Task 2	Quality Assurance					
Costs	Federal	$3,497	Non-Federal	$943	Total	$4,440
Objective	To develop data quality objectives (DQOs) and quality assurance/control (QA/QC) activities to ensure data of known and acceptable quality are generated through this project.					
Subtask 2.1	NRA will develop a QAPP for .activities in Tasks 3 and 6 consistent with the most recent versions of *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* and the *TSSWCB Environmental Data Quality Management Plan.*					
	Start Date	Month 1	Completion Date	Month 6		
Subtask 2.2	NRA will implement the approved QAPP. NRA will submit revisions and necessary amendments to the QAPP as needed.					
	Start Date	Month 7	Completion Date	Month 36		
Deliverables	• QAPP approved by TSSWCB and EPA in both electronic and hard copy formats • Approved revisions and amendments to QAPP, as needed • Data of known and acceptable quality as reported through Tasks 3 and 6					

Tasks, Objectives and Schedules						
Task 3	Modeling and Data Analysis					
Costs	Federal	$52,393	Non-Federal	$1,824	Total	$54,217
Objective	To analyze water quality data using watershed models to determine needed pollutant load reductions to achieve environmental goals established by stakeholders and to estimate potential loadings from identified pollutant sources.					
Subtask 3.1	USGS has developed a sediment model (HSPF) for the City of Corpus Christi for the Lower Nueces River. This model will be used to estimate sediment loading contributions in the WPP.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 3.2	NRA will contract with a consultant to develop LDCs and use SELECT to quantify pollutant loadings and needed load reductions for nutrients and bacteria for the watershed. Modeling will be used to estimate loadings from various sources and to identify critical loading areas within the watershed.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 3.3	NRA will conduct a historical data review for the waterbody, to be included in the WPP, in order to assess and characterize trends and variability in water quality. Historical data collection activities will concentrate on 1) ambient water quality data (including groundwater); 2) stream flow and water level data; 3) precipitation records; and 4) biological data. USGS, National Weather Service, Texas Parks and Wildlife Department, Texas Water Development Board, Groundwater Conservation Districts, Texas Stream Team, TCEQ, EPA and others will be queried for data related to the study area.					
	Start Date	Month 1	Completion Date	Month 36		
Deliverables	• Results of sediment modeling analysis included in the WPP • Results of nutrient and bacteria modeling analyses included in the WPP • Historical data review included in the WPP					

Tasks, Objectives and Schedules						
Task 4	Public Participation and Stakeholder Facilitation					
Costs	Federal	$60,389	Non-Federal	$71,053	Total	$131,442
Objective	To coordinate and facilitate public involvement in a watershed planning process that will enable local decision making for the Lower Nueces River watershed.					
Subtask 4.1	NRA will facilitate public participation activities and coordinate stakeholder involvement in the project; NRA will develop (Months 1-2) and maintain (Months 3-36) a database of stakeholders likely to be affected by this project for use in engaging the public in the watershed planning process.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 4.2	NRA will facilitate public participation and stakeholder involvement in the watershed planning process. NRA will provide logistical support for public meetings, including, but not limited to, securing meeting facilities, preparing/disseminating meeting notices and agendas, and preparing meeting summaries. Meeting notices, agendas, and summaries will be posted to the project website. It is anticipated that at a minimum, quarterly public stakeholder meetings of the Partnership/Steering Committee will be sufficient; however, meeting frequency may be adjusted throughout the course of the project to accomplish project goals. Additionally, workgroup meetings (education and outreach, water quality, utilities, agriculture, and recreation) will be held as needed. TSSWCB will review and approve all meeting notices, agendas, materials, and summaries prior to public dissemination.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 4.3	NRA will attend and participate in other public meetings as appropriate in order to communicate project goals, activities and accomplishments to affected parties. Such meetings may include, but are not limited to, city councils, county commissioners' courts, Clean Rivers Program Basin Steering Committee and Coordinated Monitoring, local soil and water conservation districts (SWCDs), groundwater conservation districts, Coastal Bend Bays and Estuaries Program, and other appropriate meetings of critical watershed stakeholder groups.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 4.4	NRA will facilitate communication with stakeholders in order to engage the public and affected entities in the watershed planning process. NRA will utilize all appropriate communication mechanisms including direct mail, e-mail, the project website, and mass media (print, radio, television, as funds allow). NRA will develop, publish, and distribute 5 semi-annual newsletters (1 in year 1 and 2 in years 2 and 3) that highlight Lower Nueces River watershed activities; the newsletter shall be distributed as most appropriate to individual landowners and entities in the watershed. NRA will develop and disseminate general project informational materials, including, but not limited to, flyers, brochures, letters, factsheets, news releases, and other appropriate promotional publications. NRA will develop and utilize a listserv (e.g., http://listserv.tamu.edu/) to facilitate direct discussion between stakeholders. TSSWCB must approve all project-related content in any educational materials and publications prior to distribution.					
	Start Date	Month 1	Completion Date	Month 36		
Deliverables	• Stakeholder contact list, updated as appropriate • Public meeting notices, agendas, materials, summaries, and list of attendees posted on the website • Educational and promotional materials, as developed and disseminated • 5 semi-annual Newsletters, as developed and distributed • List of other meetings attended and dates with brief summary of topics discussed and action needed included in QPRs					

Tasks, Objectives and Schedules						
Task 5	On-Site Sewage Facility Inventory and Inspections					
Costs	Federal	$35,247	Non-Federal	$6,806	Total	$42,053
Objective	To create an inventory of permitted OSSFs in the watershed, provide education workshops for homeowners, and develop a voluntary OSSF inspection and financial assistance program.					
Subtask 5.1	NRA will complete the permitted OSSF inventory for Jim Wells County. Information collection for Nueces and San Patricio Counties was initiated through TSSWCB project 05-14, *Inventory of On-Site Sewage Facilities to Support Watershed Planning in the Lower Nueces River Watershed*, and will be completed in FY2012 with funding from a GLO CMP Cycle 14 grant. OSSF data will be obtained through Internet or on-site hard copy retrieval. NRA will input data into a spreadsheet with fields for all necessary information, including required information on TCEQ's Application for On-Site Sewage Facility.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 5.2	NRA will coordinate and collaborate with Extension to deliver workshops targeted to owners of anaerobic and aerobic OSSFs in years 2 and 3 (4 total workshops). These workshops will describe proper routine maintenance techniques that will improve the effectiveness of their wastewater treatment system. The purpose and proper function of the OSSF will be described with an emphasis on how water use patterns, cleaning products, personal care products and organic material can impact OSSF function. Extension will administer pre- and post-workshop evaluations to gauge the knowledge gained by educational program participants. The evaluations will be administered at the beginning and end of each workshop to evaluate knowledge gained and intended behavioral change.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 5.3	NRA will, with input and technical assistance from state and local regulatory agencies, develop a voluntary OSSF inspection and financial assistance management plan for qualified participants. This management plan will be incorporated into the WPP.					
	Start Date	Month 1	Completion Date	Month 36		
Deliverables	• Spreadsheet of permitted OSSF inventory • OSSF workshop list of participants, agendas, and materials for each workshop • Summary of OSSF workshop participant pre/post evaluation results • OSSF voluntary inspection and financial assistance management plan					

Tasks, Objectives and Schedules						
Task 6	Water hyacinth survey					
Costs	Federal	$8,446	Non-Federal	$1,414	Total	$9,860
Objective	To survey the extent of water hyacinth infestation in the river to provide information to the City of Corpus Christi for the development of a management plan.					
Subtask 6.1	NRA will conduct a vegetation survey to assess water hyacinth density and location. Up to 2 trips will be taken to document the infestation. The documentation will include photographs, GPS location, and an estimate of areal extent. There is limited public access to the river. The upper approximately 32 miles of the river is only accessible by kayak or canoe. The lower 7 miles is also accessible by motor boat.					
	Start Date	Month 1	Completion Date	Month 12		
Subtask 6.2	NRA, in coordination with the CCCWD, will develop a management plan for water hyacinth in the river.					
	Start Date	Month 13	Completion Date	Month 24		
Deliverables	• Results of vegetation survey incorporated into WPP • Water hyacinth management plan					

Tasks, Objectives and Schedules						
Task 7	Large debris evaluation					
Costs	Federal	$33,972	Non-Federal	$943	Total	$34,915
Objective	To create an inventory of large items that should be removed from the river.					
Subtask 7.1	NRA has contracted with BRC to conduct an evaluation of the river to document large debris.					
	Start Date	Month 1	Completion Date	Month 6		
Subtask 7.2	NRA will work with affected stakeholders to develop a plan for removal of large debris based on the results of Subtask 7.1, taking into consideration possible negative effects of such removal.					
	Start Date	Month 6	Completion Date	Month 24		
Deliverables	• Results of large debris evaluation incorporated into WPP • Large debris removal plan					

Tasks, Objectives and Schedules						
Task 8	Lower Nueces River Watershed Protection Plan Development					
Costs	Federal	$73,343	Non-Federal	$19,771	Total	$93,114
Objective	NRA, in collaboration with Project Partners will work with stakeholders to develop the Lower Nueces River WPP.					
Subtask 8.1	NRA, in collaboration with Project Partners, will develop a WPP for the Lower Nueces River watershed that is consistent with and satisfies the expectations of the nine elements fundamental to watershed-based plans as described in EPA's *2004 Nonpoint Source Program and Grants Guidelines for States and Territories* [68 Fed. Reg. 60653-60674 (October 23, 2003)] and the *Handbook for Developing Watershed Plans to Restore and Protect Our Waters* (2008) and incorporates the elements of EPA's Healthy Watersheds Framework as described in the technical guidance document *Identifying and Protecting Healthy Watersheds* (EPA 2012). The WPP shall be founded on decisions made by stakeholders through the watershed planning process and incorporate findings from project tasks. NRA will facilitate public review and stakeholder approval of the WPP.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 8.2	NRA will develop an "executive summary" style document, based on the WPP, which will serve as a public outreach tool to garner support for the implementation of the WPP and achieve long-term sustainability.					
	Start Date	Month 34	Completion Date	Month 36		
Subtask 8.3	After EPA has completed a satisfactory nine element consistency review of the WPP, NRA will publish, print, and distribute to stakeholders the WPP and "executive summary" style document.					
	Start Date	Month 34	Completion Date	Month 36		
Deliverables	• Draft nine element WPP to TSSWCB (Month 32) • Final stakeholder-approved nine element WPP (Month 36) • "Executive Summary" style public outreach document based on WPP					

Project Goals (Expand from Summary Page)

- Establishing and providing direction for a stakeholder group that will serve as a decision-making body
- Identifying and analyzing spatial and temporal patterns in watershed data
- Development of a WPP for the Nueces River Below Lake Corpus Christi (Segment 2102) watershed.
- OSSF inventory and development of a voluntary inspection and financial assistance program to address failing systems
- Deliver OSSF education workshops
- Analyzing watershed data using models to provide indicators of health of the river and its watershed and allow impact and assessment pollutant loading
- Survey of water hyacinth density and development of a plan to remove water hyacinth from the river
- Evaluation of large debris and development of a plan to remove large debris from the river
- Dissemination of information on the Nueces River Watershed Partnership website

Measures of Success (Expand from Summary Page)

- Development and submission of a completed, stakeholder-approved WPP for the Lower Nueces River that outlines the voluntary management approaches desired by the Lower Nueces River watershed landowners and stakeholders.
- Completed permitted OSSF inventory.
- Development of a management strategy to address OSSFs in the watershed.
- Development of a management strategy for water hyacinth in the river.
- Development of a management strategy for large debris removal from the river.
- Website development and distribution of education and outreach materials.
- Coordination and engagement of watershed stakeholders via the Lower Nueces River Watershed Partnership; this existing group will provide local stakeholders a platform for decision making regarding management of the Lower Nueces River watershed
- Completed modeling of the watershed to be used to develop management strategies and aid in identifying key areas in the watershed where management should be focused
- Effective delivery of OSSF educational programs as indicated by the number of landowners, citizens, and other stakeholders participating in workshops; and increased knowledge and understanding of OSSFs as measured by pre/post evaluations.

***2005 Texas Nonpoint Source Management Program* Reference (Expand from Summary Page)**
Goals and/or Milestone(s)
Long Term Goal 2 – Support the implementation of state, regional, and local programs to prevent NPS pollution through assessment, implementation, and education.
Long Term Goal 5 – Develop partnerships, relationships, memoranda of agreement, and other instruments to facilitate collective, cooperative approached to manage NPS pollution.
Long Term Goal 6 – Increase overall public awareness of NPS issues and prevention activities.
Long Term Goal 7 – Enhance public participation and outreach my providing forums for citizens and industry to contribute their ideas and concerns about the water quality management process.
Short-term Goal One – Data Collection and Assessment – Objective C – Develop and adopt at the state level …WPPs.
Short Term Goal 2 –Implementation: Coordinate and administer the NPS program to support the implementation of TMDL Implementation Plans and/or WPPs and other state, regional, and local plans/programs to reduce NPS pollution. Manage all CWA §319 grant funds efficiently and effectively to target implementation activities to the areas identified as impacted, or potentially degraded with respect to us by NPS pollution.
Short Term Goal 3 – Education: Conduct education and technology transfer activities to help increase awareness of NPS pollution and prevent activities contributing to the degradation of waterbodies, including aquifers, by NPS pollution.

Part III – Financial Information

Budget Summary				
Federal	$	309,727	% of total project	55%
Non-Federal	$	248,968	% of total project (≥ 40%)	45%
Total	$	558,695	Total	100%

Category	Federal	Non-Federal	Total
Personnel	$ 169,393	$ 103,014	$ 272,407
Fringe Benefits	$ 41,458	$ 28,399	$ 69,857
Travel	$ 3,676	$ 0	$ 3,676
Equipment	$ 0	$ 0	$ 0
Supplies	$ 625	$ 0	$ 625
Contractual	$ 45,075	$ 0	$ 45,075
Construction	$ 0	$ 0	$ 0
Other	$ 14,980	$ 0	$ 14,980
Total Direct Costs	$ 275,207	$ 131,413	$ 406,620
Indirect Costs (≤ 15%)	$ 34,520	$ 19,712	$ 54,232
Unrecovered Indirect Costs	$ 0	$ 97,843	$ 97,843
Total Project Costs	$ 309,727	$ 248,968	$ 558,695

The TSSWCB CWA §319(h) NPS Grant Program has a 60/40% match requirement. The cooperating entity will be reimbursed 60% from federal funds and must contribute a minimum of 40% of the total costs to conduct the project. The 40% match must be from non-federal sources and should be described in the budget justification. Reimbursable indirect costs are limited to no more than 15% of total federal direct costs. The project budget generally covers a three year period.

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	$ 169,393	• NRA Project Manager: 50% effort annually ($128,905) • NRA Administrative Staff Support: 5% effort annually ($6,900) • NRA Technical Staff Support: 5% effort annually ($6,000) • NRA Staff: 15% effort annually ($16,650) • NRA Staff: 8% effort annually ($10,938)
Fringe Benefits	$ 41,458	• NRA Personnel: 24.47% of salary •
Travel	$ 3,676	• NRA Project Manager: 2 trips annually @ 400 mi & $0.555/mile + lodging ($77) and per diem ($46) (Roundtable meetings) ($2,070) • NRA Project Manager: 4 trips annually @ 26 mi & $0.555/mile (Stakeholder meetings) ($173) • NRA Project Manager: 1,441 mi @ $0.555/mile (Workgroup, other public meetings and misc. travel ($800) • Part-time Employee: 10 trips @ 96 miles/trip at $0.555/mile + $10 meals/trip ($633)
Equipment	$ 0	N/A
Supplies	$ 625	• Stakeholder meetings - $50/meeting, 4 mtgs/yr ($600) • Data storage supplies for OSSF data collection - $25
Contractual	$ 45,075	• Extension: OSSF Workshops: 4 @ $2,500 / workshop ($10,000) • Contracted Entity TBD: Water Hyacinth Survey: 80 hours @ $40/hour ($3,200) • BRC: Large Debris Evaluation: $30,475 • Jim Wells, Nueces, and San Patricio Counites: DMWTW campaign, 4 signs/installation @ $350 each ($1,400)
Construction	$ 0	N/A
Other	$ 14,980	• NRA: Printing and distribution of 5 newsletters @ $1,250/newsletter ($6,250) • NRA: Distribution of 12 stakeholder meeting announcements @ $100/announcement ($1,200) • NRA: Distribution of 4 OSSF Workshop Announcements @ $382.50/announcement ($1,530) • NRA: Printing and distribution of Executive Summary and WPP: $6,000
Indirect	$ 34,520	15% of Modified Total Direct Federal Costs (Total direct expenses minus Contractual amount)

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	$ 103,014	• NRA Project Manager: 25% effort annually ($61,384) • NRA Administrative Staff Support: 5% effort annually ($6,489) • NRA Technical Staff Support: 5% effort annually ($5,850) • NRA / CRP Outreach: 25% effort annually ($29,291)
Fringe Benefits	$ 28,399	• NRA Project Manager: 23.8% of salary • NRA Administrative Staff Support: 31.7% of salary • NRA Technical Staff Support: 32.4% of salary • NRA / CRP Outreach: 33.5% of salary
Travel	$ 0	N/A
Equipment	$ 0	N/A
Supplies	$ 0	N/A
Contractual	$ 0	N/A
Construction	$ 0	N/A
Other	$ 0	N/A
Indirect	$ 19,712	15% of Modified Total Direct Non-federal Costs
Unrecovered Indirect	$ 97,843	31% of Modified Total Direct Federal and Non-federal Costs